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in a Poem by Tomas Tranströmer**

Inger Bierschenk

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Topology of the Ingrained Quality in a Poem by Tomas Tranströmer

Inger Bierschenk

Abstract An early poem by Nobel laureate Tomas Tranströmer from the collection *17 poems* (1954) was studied. With the Agent-action-Objective [AaO] model and the associated procedures of Perspective Text Analysis (PTA/ Vertex), an approach is presented for discovering the interior of modern poetry. The study describes how the spoken side of the poetic language is interacting with its unspoken side to make known how the interrelated structures of energy flows and fusions are generated. Through the mirroring technique, the description of Intention, governed by the [A] component, was extracted from the Orientation, governed by the [O] component. By means of the employed geometric tools, the poetic technique was identified and it was shown how the governing [AaO] mechanism generates the individual perspective inherent in a poetic text. The study shows that the method provides additional description of poetry, which involves the discovery of hidden structural relations that escape detection by some traditional methods of interpretation that are exemplified with works of literary scholars.

The present study will examine a poem by Tomas Tranströmer, a poet whose works have been analyzed and interpreted with diverse methodological approaches and in different languages. The aim is to introduce a method of text analysis that has not previously been applied to a modern poem. Its result will be discussed against a background of some interpretations made by a few scholars who have devoted themselves to Tranströmer's poetry.

The poem "Sammanhang"

Some considerations at the selection of a poem for analysis were the following: The poem should be pure poetry, not a prose poem. The metric or graphic design should not be the determining factor, but it should be short to suit the purpose of testing the method. Further, it was important to find a poem that had been discussed by several researchers. The poem finally selected is "Sammanhang" (How things hang together or Connectedness) included in the collection *17 dikter (17 poems)* published in 1954 (Tranströmer, 2001/2011, p. 29). The poem reads as follows (translation from Swedish in Bankier, 1983, p. 58):

Se det gråa trädet. Himlen runnit
genom dess fibrer ned i jorden –
bara en skrumpen sky är kvar när
jorden druckit. Stulen rymd
vrides i flätverket av rötter, tvinnas
till grönska. – De korta ögonblicken
av frihet stiger ur oss, virvlar
genom parcernas blod och vidare.

See the grey tree. The sky has run
through its fibres into the earth –
only a shrivelled sky remains when
earth has had her fill. Stolen space
is twisted into a mesh of roots, twined
into greenery. The short moments of
freedom rise out of us, whirl
through the bloodstream of the Parcae and beyond.

Interpretations of "Sammanhang"

According to Kjell Espmark, "Sammanhang" is a specimen of what he terms a complete poetic universe (Espmark, 1983, pp. 79-80). The universal aspect concerns in particular the tragic relationship between heaven and earth, which Espmark reads out from the

description of what he calls a “two-way traffic to frame our lives” (p. 79). Traffic denotes both the theft of the sky, the downward sucking movement, and the moment of loss of liberty, that is, the upward swirling movement.

When Espmark describes the movements in this interaction, he also incorporates in the description the root system as part of the bonded connection. His interpretation may therefore argue that Tranströmer makes the religiously mysterious message to something sensual. The drinking of the earth, the heavenly space that is channelled through the root fibers and the shriveled, shrunken sky lose in transcendence. The “traffic” is described in greater degree as vigour of nature than as the elevated relationship between heaven and earth. Thus, the role of Parcae in the poem is to give a glimpse of sensuality to the life cycle that characterizes an otherwise unfree human nature. By pointing out that the poem is an allusion to Hölderlin’s “An die Parzen” and that traits of the medieval mystic Eckehart can be associated to the vertical movement, Espmark connects Tranströmer to the European cultural sphere while at the same time he contrasts him against its most tradition-bound poetic visions.

Joanna Bankier presents Tranströmer’s poem “Sammanhang” in light of his relationship to cyclic time (Bankier, 1985, pp. 57-59). Bankier shows how the poet is taking up the ancient idea of the cosmic tree, which symbolizes the cosmic rhythm of death and regeneration in which all living things are included. The universal aspect in the tree metaphor is “life comes from somewhere else that is not the world and departs to the beyond”, she says, paraphrasing an idea dating from long before Plato (Bankier, 1985, p. 59). According to Bankier, Tranströmer blends the Nordic and the ancient archetypes, although deliberately. The visualization of archetypic time takes place through the association of the tree image to Yggdrasil in Norse mythology. Bankier explains some of the mythological components, such as the well of Wisdom (Nimir) at one of the roots and the three Norns at another, the Nordic equivalent of Fates, as she puts it.

Bankier keeps mainly to the symbolic meaning in the text. She makes the interpretation in explicitly stating her knowledge of the poet’s world of ideas. One of these ideas is that everything is related, that man is always related to nature far into the subconscious, even when he believes to be alienated from it. This relatedness is restricted (“inter-relatedness”).

When Magdalena Slyk takes up “Sammanhang” almost two decades later, she connects to Espmark’s interpretation (Slyk, 2010, pp. 120-121). She emphasizes the connection between tree and man, which is about what she vaguely calls the basic conditions of life. Slyk dedicates most of her interpretation to explain in etymological detail the development of the name and function of Parcae in Greek and Roman mythology and their role in the poem, and also to explicate Espmark’s analysis for the readers of her time. Espmark’s interpretation of “the brief moments / of freedom...” would, according to Slyk, refer to the short stage in a life cycle in which fate has not yet had time to get a grip on us. Finally, Slyk explains what the connectedness is, namely that “the mythological Parcae constitute a link between us and our lives just like the tree is seen by the subject as a link between heaven and earth” (p. 121).

Staffan Bergsten (2011, pp. 114-116) observes the relationship between trees and humans in that the tree in “Sammanhang” may get individuality, but it lacks name and cleared identity. In his portrait, Bergsten tries to depict the relationship between Tranströmer and nature in which the poet is so strongly rooted and which seems to be part of his identity building process. The tree connects heaven and earth and forms a channel for the life-giving rain but also for solar energy. Bergsten interprets the relationship as both biological and immaterial as “the human predicament between the genetic roots in primitive life forms and our connection with a higher sphere” (Bergsten, 2011, p. 115).

Regarding the materialization, Bergsten is pondering about the term “stolen” space, which he finds somewhat drastic but he allows himself, after some reservation, to interpret it as something that is contrary to the laws of nature, “if general law of universe imposes final equalization and death then life force is a kind of stolen goods” (p. 115). The second word he discusses is “us” at the sixth line, that is, the humans. While the trees suck downwards, we whirl upwards. That which rises in us is not water but an immaterial spiritual force, which separates us from the laws of nature. Finally, Bergsten leaves aside the phrase about Parcae with the comment that it breaks the unity of the poem.

Perspective Text Analysis

Anyone who wants to get access to something invisible, such as intention or structure, must have a method that reveals just that. Perspective Text Analysis (PTA/Vertex) has been designed to detect the internal dynamics in a text, which does not have a direct connection to the visible surface (see e.g. B. Bierschenk, 1993/2013, 2011; I. Bierschenk, 1999/2003, 2011; I. Bierschenk & B. Bierschenk, 2004; ref. to manuals in Appendix). The smallest units in this analysis are the graphemes. The analysis creates a protocol of how strings of graphemes are manifested and interwoven in the text building, a process that is invisible when a person speaks or writes. This protocol uncovers the mechanism that shows the gaps in the flow that creates disparities and determines what the gaps should be filled with for the weave to be complete. The mode of action of this instrument involves a visualization of the invisible. Graphemes and sequences of graphemes help to create the image of the invisible but it has no meaning until the picture is clear. Thus, the text is the whole, and therefore it is its own autonomous frame of reference.

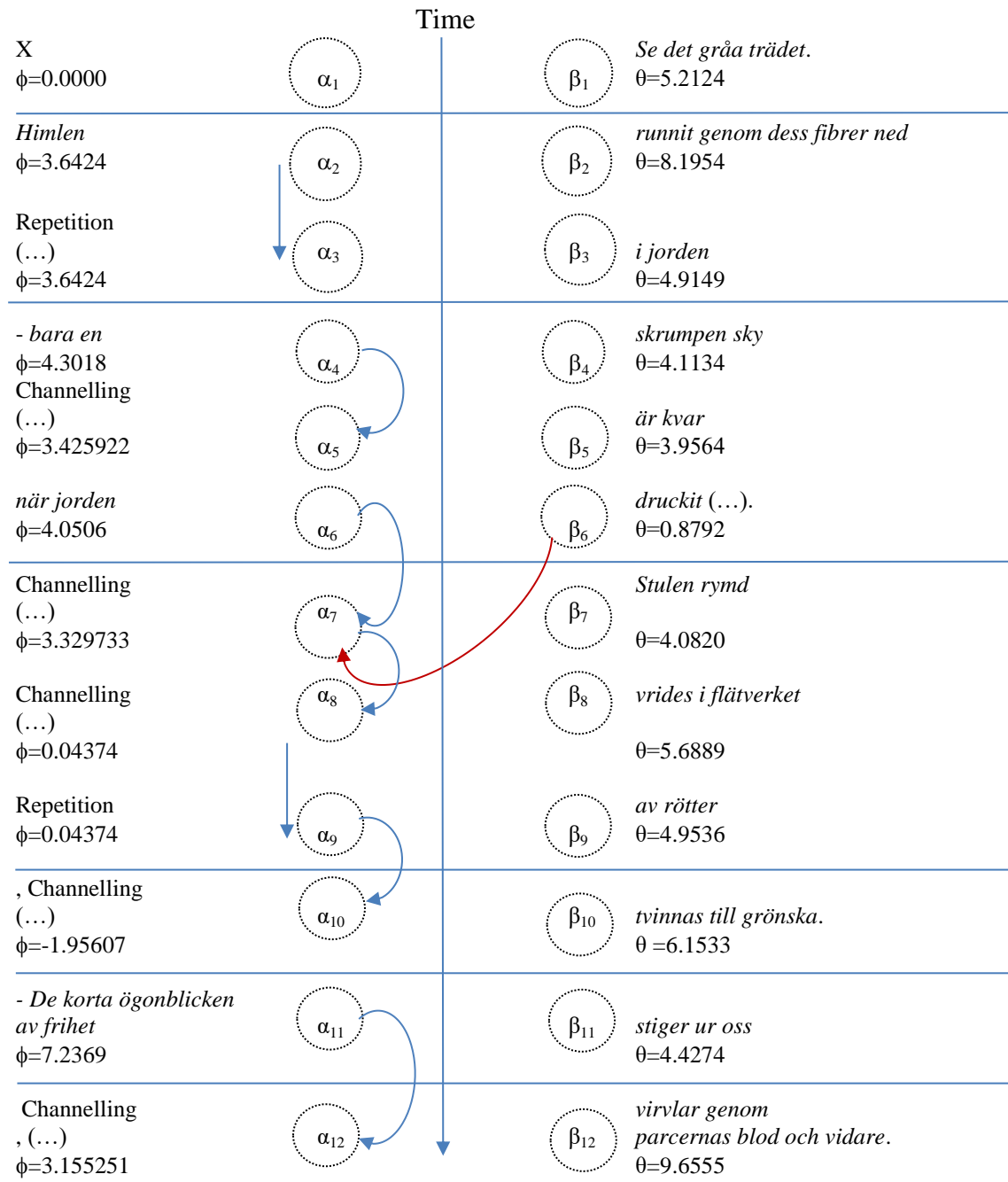
A text flows in a time-bound rotating movement and rhythmically. This is the natural way in which language creates the elasticity necessary for communication. The more elasticity or implicitness, the more space will be created. Two components operate in this space creation movement, namely the Agent [A], which has its position before the verb in the clause, and the Objective [O], which has its position after the verb. These positions are fixed and independent of semantics. Thus, an Agent does not correlate with a person. The two components rotate with and against each other during the entire process, and not until the movement ends, they have performed their task and created the contours of a text space (image), that is, the full textual extension. When this shall be summarized graphically, it is based on the distance between the values, which form a wave. Thereafter, the flow dynamics in the dimensions [A] and [O] may be studied separately, without their mutual dependency being shattered.

In the next step, it will be a matter of getting a picture of the intricate structure of the text, which establishes concentrations of information. The results of this more abstract level is called Intention, indicating what determines the flow (the motif) and Orientation (the theme) respectively. Information is calculated by means of a fusion mechanism and is based on the distance between the knots in the texture (see Appendix, Table A1). Some knots become thicker than others and the network thus formed builds up a landscape of mountains and valleys, which can have names like any topographical map. The highest peak in such a landscape marks which structure in the orientation and intention that collects the most concentrated energy. It shall be noted that any interpretation is not present in this phase. The names that are possibly given to those energy clusters, the so-called attractors, are the result of transformations that take place exclusively based on the asymmetrical collaboration of physical and virtual strings. An attractor name occurs temporarily but may return and enter into a new transformation at a later stage in the process. Concepts in this analysis are empirical, temporarily emerged, unlike those formed by classification, which are subjected to semantically determined laws.

Perspectivation of the Poem “Sammanhang”

Flow Dynamics in the Poem “Sammanhang”

The basis for measuring the flow dynamics of a text is a protocol of the course of text building, which is then used for further processing. The protocol is given in Figure 1.



Note: For translation of the strings, see p. 3 above and Appendix, Table A1

Figure 1 Protocol of text building course in the poem “Sammanhang”

The text is moving with differentiated magnitudes on the *Objective* side, which is shown by various rotation values (in principle depending on the number of graphemes). It starts in a pretty high speed, and then it sinks in the third interval and regains almost the same speed towards the end. The speed of the Objective becomes particularly high in the second and seventeenth interval. The *Agent* side is less differentiated and instead it expresses more of a low, even speed, which is accelerating. It starts from zero and where the opposite side is speeding up this one tends to run on a low speed. The Agent is speeding up in the second last interval but is slowing down and sets at a lower level than the Objective.

To get explanations for this general picture we will look at the flow in detail. The grapheme strings of the Objective are particularly long in the second and the last interval. Such explicit surface movement involves a speed effect. The pointer (*genom*) means a break in the string sequence, which changes the angle and thus differentiates the perspective. Where the angle is broken into two phrases in the fourth interval (*i flätverket av rötter...*) the speed is decelerating.

The Agent is characterised by repetition and channelling. Repetition denotes the dependency of what happens on the Objective side, that is, the perspective breaking string. The changed angle in the Objective is viewed from an unmoved point of observation from the Agent's side. Channelling means that a dummy is substituted with the root of the immediately preceding α -variable. In this protocol, there are two significant cases that require special solutions. At the beginning of text, there is no value to pick up, so the variable remains unknown (X). The second case is the transition from the third to the fourth interval. The fourth interval starts with an empty Agent position, as there is an end of sentence preceding it, but here the string values to pick up are known. The reason for this is that the verb that is closing the third interval and the verb that is opening the fourth interval meet with a dummy variable each (*druckit Ø. Ø Stulen rymd*). When both the agent (α_6) and the objective (β_6) variables are "sucked" into the hole in order to become (α_7), a twist can be observed.

The protocol is the basis for loading into a graphing program. Here SigmaPlot (2008, Version 13.0) was used. The graphs of Figure 2 represent the flow dynamics of the Agent and the Objective.

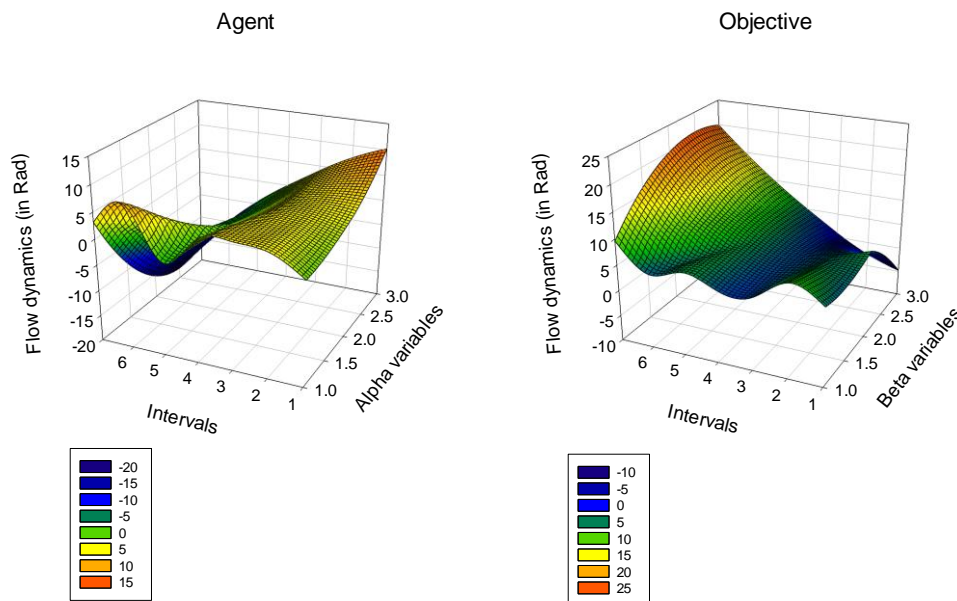


Figure 2 Flow Dynamics for Agent and Objective in the Poem “Sammanhang”

As we see, the asymmetry between the Agent and the Objective is reflected in the formations. The place where the Agent starts to turn is clear from the fourth interval, where the channelling can be observed in the dark colored wave. The lowest value of the Objective is reflected through the third interval, whereas the highest value is shown in the far right corner.

“En svallvåg rullar genom hela texten” (A surge is rolling through the whole text) is a quote from the last stanza of Tranströmer’s poem “Kort paus i orgelkonserten” (Short break in the organ concert) (*Det vilda torget / The Wild Market Square*, 1983). With the word ‘text’, he certainly refers to other things than the poetic lines. However, it is easy to see the wave that is rolling in the Objective as the sea heaving itself and swelling smoothly toward the beach. The movement in the Agent wave is more like a breaker of the water surface. This discovery is not a metaphor; it is a representation of the reality of the text, made possible by the method. Further evidence of the imaging capabilities of the method is the representation of the phrase “Stulen rymd vrides i flätverket av rötter” (Stolen space is twisted into a mesh of roots). There, in the fourth interval, a turning in the flow is occurring, which means that the words get their direct imaging.

The Orientation in the Poem “Sammanhang”

Next part of the analysis involves an examination of the underlying structural network relations. The transformation process has developed a mesh, whose course in its entirety is shown in the Appendix, Table A1 (X-axis = stretching and Y-axis = sliding). The grid has been transformed by the graphing program (SigmaPlot, 2008, Version 13.0), which represents the relationships by calculating the proximity between the nodes. Figure 3 represents the Orientation. Since the Intention in a second step has to be extracted from it, the presentation begins with Orientation. (The English names are literally translated from Swedish.)

Just as land survey measures the distance between points and makes a geometric landscape description, the different regions and points of the topological landscape get their description. The energy is concentrated at different heights and peaks are named according to their relationships. Now follows a hike up the mountain landscape, which will support the understanding of the perspectivation that forms the basis for the naming.

The graph of the Orientation in “Sammanhang” (Figure 3) shows a landscape with distinguishable regions of various heights. At the base is placed **Rotfasthet (Rootedness)** which is the name of the following transformation:

1 5.2124 Se det gråa trädet (See the grey tree)

3 4.9149 i jorden (into the earth)

T₁ 10.1273 Rotfasthet (Rootedness)

The strings 1 (Se det gråa trädet / See the grey tree) and 3 (i jorden / into the earth) have as variables quite naturally not entered into any relationship; they are material. When the next variable added (3) shall be fused with the first one, the concept to be formed should become something novel, expressing something immaterial. Both the low magnitudes and the image of the tree, which is in contact with the ground beneath, illustrate a steadiness in several senses. The road upwards thus starts at the coordinates (x = 1, y = 1), **Rootedness**. Hereafter, the road leads toward a low-lying region consisting of Vältning (Overturning) and Spridning (Spreading). The turning over is directly related to Rootedness in the following way:

T₁ 10.1273 Rotfasthet (Rootedness)

T₂ 8.0698 Skövling (Devastation)

T₃ 18.1871 Vältning (Overturning)

Skövling (Devastation) in this connection means some kind of intrusion in a given order, a destruction and deprivation of Energy (skrumpen sky är kvar / shrivelled sky remains). When the devastation affects *Rootedness*, the solid foundation, identity, an aging or breakdown takes place that leads to the cease of power, it tips over. There a disruption of a regime or growth is observed, named **Overturning**. To bring back the power an effective system recovery is needed. In the same region, there is a concept of this very meaning, namely **Spreading**:

T_4 9.7709 *Urvridning* (Wringing)
 T_5 4.9536 *Rötter* (Roots)
 T_6 14.7245 **Spridning** (Spreading)

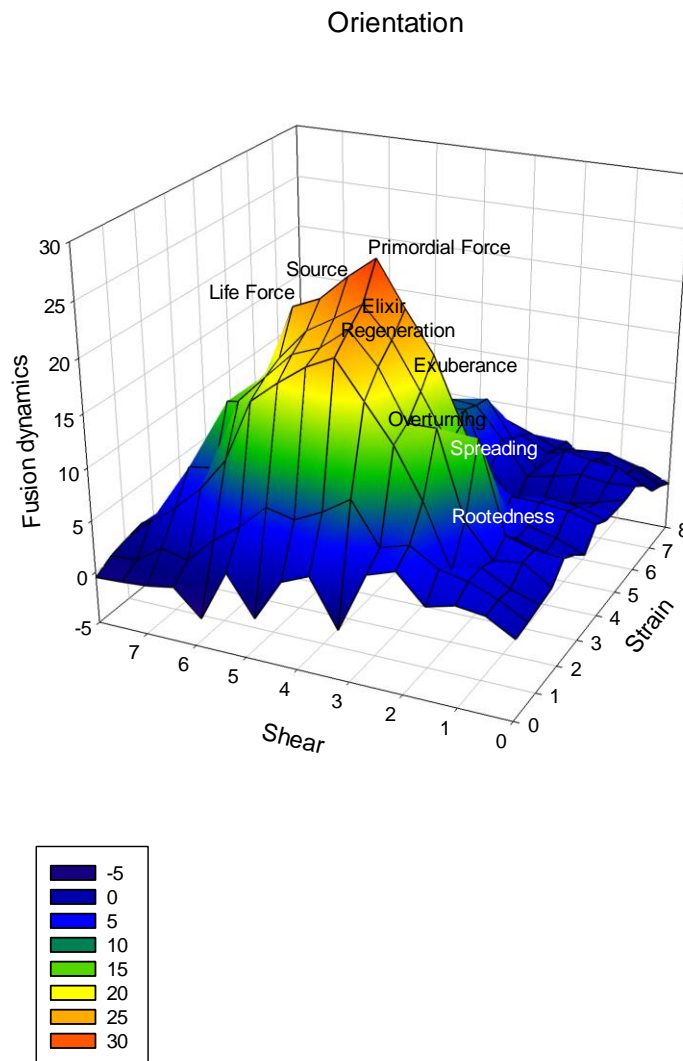


Figure 3 *Fusion Dynamics for the Orientation Dimension in the Poem “Sammanhang”*

The concept of **Spreading** in this context refers to the underlying root system, which by being well spread out is prepared for its life-supporting task. *Wringing* requires something flowing and at the same time shrinkage of volume. When a space becomes “stolen”, it means that it is emptied of something that gives life. This life-giving stuff may be water or sunlight, which

instead of being retained where it is formed is wringed out to be handled by a new carrier, consisting of the roots in the underground. *Roots* transforms (affects) the Wringing, making the spreading of energy in the fibers possible.

Here the path continues, and the climbing to the top goes through a region with concepts that reflect the targeted vigour, which is located to the left of the top:

T_6 14.7245 *Spridning (Spreading)*

T_7 6.1533 *Växtkraft (Vigour)*

T_8 20.8778 *Frodighet (Exuberance)*

Vigour is a weakly transformed concept formed by the variable (tvinnas till grönska / twined into greenery). However, it is dynamic and reflects the movements that occur in the root system when it shall carry nutrients into every fiber. Through this prime ability, the life-giving essences are spread out to their recipients in abundant measure, which has been named **Exuberance**. Exuberance weaves into the next step by naturally merging with Regeneration, as is shown by the following relationships:

T_3 18.1871 *Vältning (Overturning)*

T_8 20.8778 *Frodighet (Exuberance)*

T_{10} 39.0749 *Föryngring (Regeneration)*

Exuberance causes a strong demonstrable change as this attractor will be picked up by the earlier formed *Overturning*. The lush vegetation is so intrusive that the disorder caused by the overturning is abruptly thwarted. At this point in the process, the turn thus occurring has been termed **Regeneration**. Regeneration refers to a process somewhere in a cycle that involves recursion, that is, a course which turns back to pick up energy and returns with renewed strength or in renewed guise.

At this point, it may be appropriate with a note. In the same manner as what concerns the flow dynamics, in which a rotation was observed in the fourth interval, a so-called hysteresis occurs in the transformation process at the attractor T_9 . It means that two paths, each of which has reached its end, are merged right here. The interesting thing is that even at the conceptual level, there is a direct imaging. The former case discussed is indicated by the verb (vrides / is twisted). In this case, it is an attractor with destructive meaning and another with a constructive meaning, which cause a perspective shift. Thus, Regeneration is a central knot in the network of relationships.

The possibility of regeneration is a prerequisite for a system to show its strength. Within the last region, which lies on the road to the top, **Life Force** is positioning itself:

T_9 39.0749 *Föryngring (Regeneration)*

T_{10} 4.4274 *Essens (Essence)*

T_{11} 43.5023 *Livskraft (Life Force)*

For Regeneration to be transformed into **Life Force** something that cannot be stopped is needed. The variable (stiger ur oss / rise out of us) means a movement from the biological, material life to the immaterial life, which has been given the name Essence. That which is unstoppable flows abundantly, which means that the next transformation is inevitable:

T_{11} 43.5023 *Livskraft (Life Force)*

T_{12} 0.8792 *Drickande (Absorbing)*

T_{13} 44.3815 *Källa (Source)*

Absorbing, slightly transformed from the variable (druckit (Y) / had her fill), is the organic movement the most life affirming. The precondition for a source to be life giving is that someone or somewhat is using it for thirst quenching. Absorbing is the self-evident movement giving the source its existential function. What is absorbed is not explicitly stated though.

Since the concept of Essence is a component of Life Force, the ingestion also gets immaterial significance in this relationship. Thus **Source** expresses exuberance or richness, which is transformed through the variable (virvlar genom parcernas blod och vidare / whirl through the bloodstream of the Parcae and beyond), which has been given the name *Lifecycle*. This movement refers to the three ancient goddesses of destiny. Both Lifecycle and Source can be associated with something fatal, so from here to the idea of magic potion is a small step.

T_{13} 44.3815 *Källa (Source)*

T_{14} 9.6555 *Livscykel (Lifecycle)*

T_{15} **57.1918** **Elixir (Elixir)**

The name Elixir illustrates the eternal, cyclical movement that is birth and living, as well as dying and death, and the force that out of extinction will recreate life. The force emanates from something flowing, life giving, which has to be governed and be given a direction. *Channelling* is the name of the strings (runnit genom dess fibrer ned / has run through its fibres) and refers to a life cycle coming into operation. Life is thus supplied with a connecting link to a time aspect. Thus, the path has reached its goal, namely the highest peak

T_{15} 57.1918 *Elixir (Elixir)*

T_{16} 8.1954 *Kanalisering (Channelling)*

T_{17} **65.3872** **Urkraft (Primordial Force)**

When finally the connecting movement in Channelling is integrated with the intensifying movement in Elixir, a concentration of energy evolves, which has been named **Primordial Force**. It shall be conceived as a universally operating potential that steers the striving for life.

The Intention in the Poem “Sammanhang”

Figure 4 presents the structure that the operations on the Intention mesh extracts from the Orientation mesh. The transformation of alpha variables and the extracting procedure are given in the Appendix, Table A2 and A3 respectively. More about the extraction procedure can be found in the manual (I. Bierschenk & B. Bierschenk, 2011, p. 28).

The displayed Intention says something about the inherent control mechanism of the text. When the Orientation focuses on Primordial Force as the overall theme, the Intention instead gives emphasis to *Life Force*, perched atop, and *Source*, the last point in the process. Both are closely connected and indicate the importance of receiving that, which is life giving. Along with the weight of these concepts in the Orientation, the Intention then shows that a structure relating to the existence of everything is central in the text.

Rootedness has once again positioned itself in the lower region, this time together with *Devastation*, which is not in focus in the Orientation. These two form *Overturning*, which is to be found a little further up the mountainside.

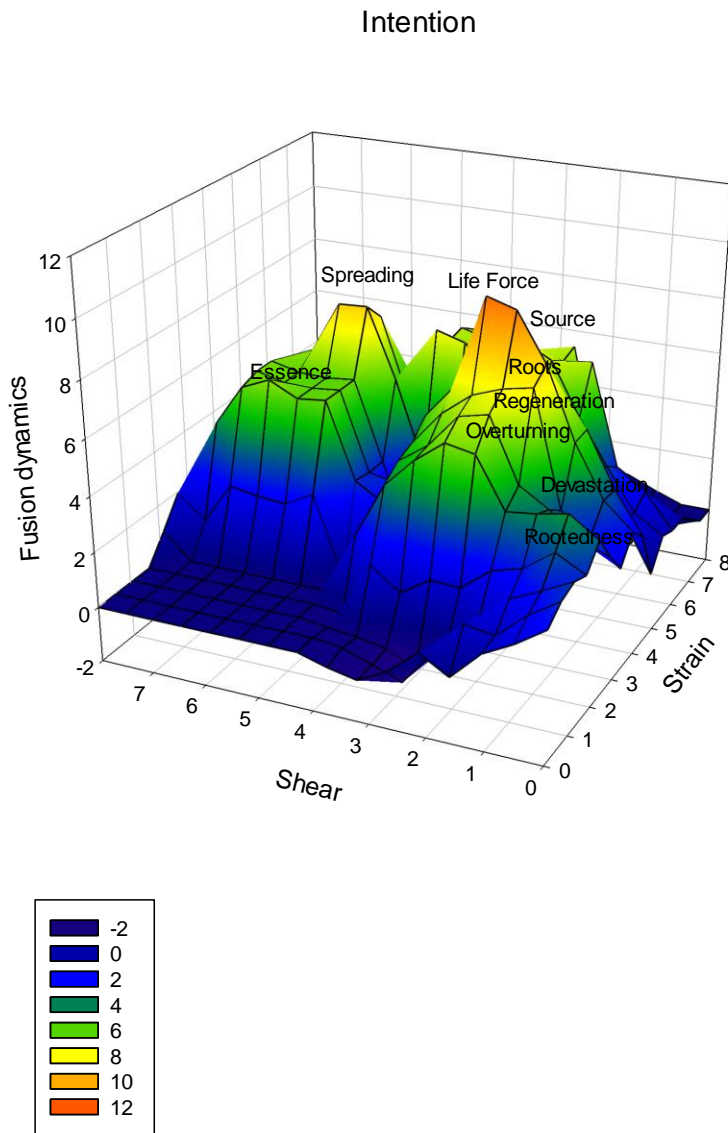


Figure 4 *Fusion Dynamics for the Intention Dimension in the Poem "Sammanhang"*

A perspective on the contrast between stability and destruction is strongly distinguishable here. However, whereas the Orientation thematically places Overturning in the same region as Spreading and Exuberance, where the vigour in the roots is implied, the Intention upgrades the *Roots*, which is weakly transformed in the Orientation. In the perspective, the most important property of the roots is not exuberance but the capacity to contribute to *Regeneration*. Together with Overturning, the regeneration is of import, which has been confirmed by the shift at T₉ in the Orientation structure. It should further be mentioned that Elixir, which is placed close to Regeneration in the Orientation, now is implicit, which indicates that like Vigour it is an implicit theme when the motif is mainly directed towards change.

In a region that is separate from the aforementioned lies *Spreading*. It appears an urgent part of the landscape of Intention. Spreading is of great integrative significance as part of the regeneration and has the third highest value because of its life-giving meaning. Finally, *Essence* has placed itself on a fairly low plateau and with a clear perspective distance from the other concepts. Essence has appeared in the Orientation as a sub-component of Life Force along with Regeneration. Here is marked the significance of this concept as carrier of the

intention that lifts the regeneration and related biological courses of events from a material meaning to an immaterial.

Remarks on the Poetic Technique

In his work about Tranströmer's later poems, Niklas Schiöler is addressing the aspect of composition. Part of his reasoning can be used to look at "Sammanhang" from a formal point of view, although this poem is not comprised in his selection. Schiöler (1999) shows how the poems become concentrated on different linguistic levels and what effect this elaborate, so-called imagistic technology has on the perception of the poetic message. This is a concentrated poetic technique that Schiöler (1999, p. 22) calls densification. Then it must be made clear that Schiöler works with texture and cannot really say anything about the inner meaning of a text. Densification in the interior structural sense is the kind that Perspective Text Analysis has revealed. A more appropriate term for structural density is therefore energy concentration, which is objectively measurable and describable. Marks of structural densification are for example the following:

The graphs in Figures 3 and 4 show that the Intention is smaller in its dimensionality. That is because the Agent variables that make up the Intention space have lower values as the strings are shorter. This difference between the dimensions can be read from the z-axis (indicating fusion dynamics). Despite the difference, they have both about the same compactness. This is because the Intention net takes up more places for dummy variables. There is a measure of how compact a network can be. Wales (2003, p. 12) points out that the maximum dimension is 74% filled places. The Orientation of "Sammanhang" has 43% (35/81) and the Intention has 48% (39/81) filled positions. It has thus been possible to obtain an objective measure of the density of the poem.

Another mark is the placement of the attractors. If they position themselves in a similar order both in Orientation and in Intention, it would indicate that the perspective is narrow. The poem "Sammanhang" has an artistic goal, which expresses itself in that it is relatively tight in shape in both components but simultaneously asymmetric in structure, which is particularly noticeable in the Intention. The latter becomes apparent through varying magnitudes of the attractors in the Orientation compared to the Intention. Consequently, they are placing themselves differently in the graphs. The perspectivation in the poem differentiates clearly between Intention (controlled by the Agent) and its description by the Orientation (controlled by the Objective).

Discussion

First, it should be pointed out that the considerations about "Sammanhang" made by the cited scholars have much in common, although they differ in outlook, that is, what is emphasized. Superficially seen, the concepts that may be read out from their interpretations sometimes coincide with the ones that have evolved from the PTA/Vertex analysis. Any other results could hardly be expected, considering this semantically and lexically rich poem. Evidently, it activates connotations that can make public the knowledge and insights that the interpreter has, which in several cases seem to go far beyond what is motivated from the text itself.

One of Espmark's explicit aims of his poem interpretation is to reach "the explicit or implicit statement of the text" (Espmark, 1983, p. 19), which is his definition of intentionality in a text. An impressionistic analysis of his own statements gives a clear picture that his description is close to the text surface, when compared to the network nodes in Table A1. The concepts close to the surface indicate only a slight transformation and express a tangible, sensual side of the linguistic ways of expression.

For Slyk (as for Espmark) “Sammanhang” is a didactic poem, in which the subject is explaining the state of affairs for a listener or assembly, so it is not the poem itself that gets an explanation, but its function.

A highly symbolic interpretation as Bankier’s may seem to be related to the ideas that emerged in the present analysis of interwoven nets. But the philosophical framework does not reflect the dynamics that the nodes of the graphs and their empirical “inter-relatedness” are reproducing.

The frame of reference for Bergsten is not any religious-mystical worldview or something archaic-mythological; rather it is timeless and systemic. It may seem as if his conclusions are close to the results of PTA/Vertex. Nevertheless, Life Force, for example, becomes more tied to the vigour of the lifecycle in a material sense. Bergsten, namely, explicitly uses the graphic design of the poem for his interpretation so that he assumes that the dash on the seventh line is starting some kind of change (Bergsten, 2011, p. 115), whose significant word is “freedom”. In fact, the PTA/Vertex procedures have revealed that a perspective shift takes place just before the dash, where the attractor T₉ (Regeneration) is formed. This kind of relations can hardly be detected from the outside of the text.

Tranströmer in the text

How do we know that language is able to carry the intentional meaning of the author? Often when Tranströmer’s poetry is mentioned the theme tends to be “the great enigma”. Above all, it was used by Tranströmer himself in the title of his last book of poetry in 2004. Bergsten (1989) argues that the enigma is the boundary between external and internal, something mysterious that cannot easily be captured in words. Dressed in a musical idiom, the enigma may get a comforting expression when the language of poetry feels inadequate. Likewise, Robert Bly (1981), American poet and translator of Tranströmer, discusses the importance of sonority in language in the transference of life experience. His argument is that music generates something in our minds that is not kept alive by content alone. Enigma and mystery are closely connected with religion in the sense that they evoke a feeling of leading to hidden connections, beyond words. Accordingly, Bankier (1981) perceives the comprised description of nature in Tranströmer’s poetry as devotion, in which the prosaic tone is masking some truer, unmentionable reality.

The problem of language and its borders is highlighted by Bernt Olsson. He argues that the enigma to be solved is to reach contact with something outside, which he terms the other side, that is, something outside the poet himself (Olsson, 1995, p. 395). For this contact to be established, language must be unambiguous. Torsten Rönnerstrand has treated the problem of linguistic ambiguity in an extensive study on Tranströmer’s confidence in language over time (Rönnerstrand, 2003). He points to Tranströmer’s awareness of the staining of language by external reality and the difficulty of language to express truth, that is, “that which cannot be articulated”. *Östersjöar V (Baltics V)* of 1974 contains an example of how the poet with a certain resignation reflects on the distinction between the unspoken and the spoken. Under the water are the living, forward moving and meaningful things, which, however, will be formless and incomprehensible once they break the waterline. They would rather stay under the surface, that is, unexplained. Hence, Tranströmer never wanted to explain his poems and has argued that there is nothing between the lines, and that therefore the meaning should be sought in the text itself (Schiöler, 1999, p. 18).

This article has provided a look into the meaning of the text itself as it emerges from its interior. The visualization of the flows and fusions of “Sammanhang” articulates the unspoken and thus helps to demystify the poetic language. (Apologies to those readers, who prefer keeping the mystery alive.) Finally, the mirroring technology used has made available additional insights into the poetic structure as it has been worked out by Tomas Tranströmer.

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Appendix

Manuals

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Tables

Table A1: *Transformation of beta-variables (base values of the net)*

Table A2: *Transformation of alpha-variables*

Table A3: *Extraction of terms from the O-net*

Table A1*Transformation of beta-variables (base values of the net)*

<i>X</i>	<i>Y</i>	<i>Node</i>	<i>Value</i>	<i>Transformation</i>	<i>Translation</i> ¹
0	1	1	5.2124	Se det gråa trädet	See the grey tree ²
1	0	3	4.9149	i jorden	into the earth
1	1	T₁	10.1273	Rotfasthet	Rootedness
2	0	4	4.1134	skrumpen sky	shrivelled sky
3	0	5	3.9564	är kvar	remains
3	1	T₂	8.0698	Skövling	Devastation
<i>1</i>	<i>1</i>	<i>T₁</i>	<i>10.1273</i>	<i>Rotfasthet</i>	<i>Rootedness</i>
<i>3</i>	<i>1</i>	<i>T₂</i>	<i>8.0698</i>	<i>Skövling</i>	<i>Devastation</i>
3	2	T₃	18.1971	Vältning	Overturning
4	0	7	4.0820	Stulen rymd	Stolen space
5	0	8	5.6889	vrides i flätverket	is twisted into a mesh
5	1	T₄	9.7709	Urvridning	Wringing
6	0	D	0		
7	0	9	4.9536	av rötter	of roots
7	1	T₅	4.9536	Rötter	Roots
<i>5</i>	<i>1</i>	<i>T₄</i>	<i>9.7709</i>	<i>Urvridning</i>	<i>Wringing</i>
<i>7</i>	<i>1</i>	<i>T₅</i>	<i>4.9536</i>	<i>Rötter</i>	<i>Roots</i>
7	2	T₆	14.7245	Spridning	Spreading
8	3	D	0		
8	4	10	6.1533	tvinnas till grönska	twined into greenery
7	4	T₇	6.1533	Växtkraft	Vigour
<i>7</i>	<i>2</i>	<i>T₆</i>	<i>14.7245</i>	<i>Spridning</i>	<i>Spreading</i>
<i>7</i>	<i>4</i>	<i>T₇</i>	<i>6.1533</i>	<i>Växtkraft</i>	<i>Vigour</i>
6	4	T₈	20.8778	Frodighet	Exuberance
<i>3</i>	<i>2</i>	<i>T₃</i>	<i>18.1971</i>	<i>Vältning</i>	<i>Overturning</i>
<i>6</i>	<i>4</i>	<i>T₈</i>	<i>20.8778</i>	<i>Frodighet</i>	<i>Exuberance</i>
5	4	T₉	39.0749	Föryngring	Regeneration
3	8	D	0		
2	8	11	4.4274	stiger ur oss	rise out of us
2	7	T₁₀	4.4274	Essens	Essence
<i>5</i>	<i>4</i>	<i>T₉</i>	<i>39.0749</i>	<i>Föryngring</i>	<i>Regeneration</i>
<i>2</i>	<i>7</i>	<i>T₁₀</i>	<i>4.4274</i>	<i>Essens</i>	<i>Essence</i>
2	6	T₁₁	43.5023	Livskraft	Life Force
0	7	D	0		
0	6	6	0.8792	druckit (Y)	has had her fill
1	6	T₁₂	0.8792	Drickande	Absorbing
<i>2</i>	<i>6</i>	<i>T₁₁</i>	<i>43.5023</i>	<i>Livskraft</i>	<i>Life Force</i>
<i>1</i>	<i>6</i>	<i>T₁₂</i>	<i>0.8792</i>	<i>Drickande</i>	<i>Absorbing</i>
2	5	T₁₃	44.3815	Källa	Source
0	5	D	0		
0	4	12	9.6555	virvlar genom parcernas blod och vidare	whirl through the bloodstream of the Parcae and beyond
1	4	T₁₄	9.6555	Livscykel	Lifecycle
<i>2</i>	<i>5</i>	<i>T₁₃</i>	<i>44.3815</i>	<i>Källa</i>	<i>Source</i>
<i>1</i>	<i>4</i>	<i>T₁₄</i>	<i>9.6555</i>	<i>Livscykel</i>	<i>Lifecycle</i>
2	4	T₁₅	57.1918	Elixir	Elixir
0	3	D	0		
0	2	2	8.1954	runnit genom dess fibrer ned	has run through its fibres
1	2	T₁₆	8.1954	Kanalisering	Channelling
<i>2</i>	<i>4</i>	<i>T₁₅</i>	<i>57.1918</i>	<i>Elixir</i>	<i>Elixir</i>
<i>1</i>	<i>2</i>	<i>T₁₆</i>	<i>8.1954</i>	<i>Kanalisering</i>	<i>Channelling</i>
3	2	T₁₇	65.3872	Urkraft	Primordial Force

¹ Translation of concept names is approximate. ² Translation of strings is taken from Bankier (1983, p. 58)

Table A2*Transformation of alpha-variables*

<i>Var</i>	<i>Rad</i>	<i>Var</i>	<i>Rad</i>	<i>Var</i>	<i>Rad</i>	<i>Var</i>	<i>Rad</i>
2	3.6424	D	0	T9	25.5481	T14	0.0437
3	3.6424	7	3.3297	T10	7.2369	T15	0.0437
T1	7.2848	T6	3.3297	T11	32.7850	T16	0.0874
4	4.3018	T5	19.0631	D	0	D	0
5	3.4259	T6	3.3297	8	0.0437	10	-1.9560
T2	7.7277	T7	22.3928	T12	0.0437	T17	-1.9560
T1	7.2848	D	0	D	0	T16	0.0874
T2	7.7277	12	3.1553	1	0.0000	T17	-1.9560
T3	15.0125	T8	3.1553	T13	0.0000	T18	-1.8686
D	0	T7	22.3928	T12	0.0437	T11	32.7850
6	4.0506	T8	3.1553	T13	0.0000	T18	-1.8686
T4	4.0506	T9	25.5481	T14	0.0437	T19	30.9163
T3	15.0125	D	0	D	0		
T4	4.0506	11	7.2369	9	0.0437		
T5	19.0631	T10	7.2369	T15	0.0437		

Table A3*Extraction of terms from the O-net*

<i>X</i>	<i>Y</i>	<i>A-component</i>	<i>O-component</i>			<i>Fusion</i>
		<i>Pendulum</i>	<i>Destination</i>	<i>Extraction</i>	<i>Translation¹</i>	<i>Value (q)</i>
1	1	T ₁ : 2 → 3	T _{O1}	Rotfasthet	Rootedness	7.2848
3	1	T ₂ : 4 → 5	T _{O2}	Skövling	Devastation	7.7277
3	2	T ₃ : T _{A2} → T _{A1}	T _{O3}	Vältning	Overturning	15.0125
5	1	T₄: D → 6	T _{O12}	Drickande	Absorbing	4.0506
5	2	T ₅ : T _{A4} → T _{A3}	T _{O9}	Föryngring	Regeneration	19.0631
8	4	T ₆ : D → 7	T _{O4}	Urvridning	Wringing	3.3297
6	3	T ₇ : T _{A6} → T _{A5}	T _{O5}	Rötter	Roots	22.3928
8	5	T ₈ : D → 12	T _{O14}	Livscykel	Lifecycle	3.1553
6	5	T ₉ : T _{A8} → T _{A6}	T _{O6}	Spridning	Spreading	25.5481
4	7	T ₁₀ : D → 11	T _{O10}	Essens	Essence	7.2369
4	6	T ₁₁ : T _{A10} → T _{A9}	T _{O11}	Livskraft	Life Force	32.7850
2	7	T ₁₂ : D → 8	T _{O4}	Urvridning	Wringing	0.0437
1	6	T ₁₃ : D → 1	T _{O1}	Rotfasthet	Rootedness	0.0000
4	6	T ₁₄ : T _{A13} → T _{A12}	T _{O12}	Drickande	Absorbing	0.0437
1	4	T ₁₅ : D → 9	T _{O5}	Rötter	Roots	0.0437
2	4	T ₁₆ : T _{A15} → T _{A14}	T _{O14}	Livscykel	Lifecycle	0.0874
1	2	T ₁₇ : D → 10	T _{O7}	Växtkraft	Vigour	-1.9560
2	3	T ₁₈ : T _{A17} → T _{A14}	T _{O15}	Elixir	Elixir	-1.8686
3	3	T ₁₉ : T _{A18} → T _{A11}	T _{O12}	Källa	Source	30.9163

¹Translation of concept names is approximate.